

**Speaker: Dr. Bivin G. George**, Polish Academy of Sciences, Krakow

**Time: 4 PM, 5 Sept (Sunday)**

**Link:** <https://iitroorkee.webex.com/iitroorkee/j.php?MTID=m32fc70bfac7acb7c8e6efa895017d6f1>

**Title: A geochemical outlook on Marwar Basin, western India**

### **Abstract**

The Neoproterozoic-Cambrian transition period was one of the most significant intervals in the Earth's history. Widespread global oceanic, atmospheric, geological, and biological changes characterized this interval which saw significant perturbations in the global carbon cycle, fluctuations in the climate and ocean chemistry, and worldwide orogenic events. Simultaneously, this transition interval also witnessed the remarkable rise of complex multicellular life. Sedimentary rocks of this time period serve as record keepers of such events which had shaped our planet to its present state. We studied the sedimentary record of Marwar Basin using various geochemical tools in search of such information and to establish the true geographical extent of these events. In the talk, I shall discuss some of the results from our study and their global implications.

### **About the Speaker**

Dr Bivin George is a Postdoctoral Fellow at Polish Academy of Sciences, Krakow, Poland since 2019. Prior to that he was also a post-doc fellow at Physical Research Lab (PRL), Ahmedabad. Dr. George obtained his PhD degree in Geology in 2018 from PRL. He completed his integrated Masters in Applied Geology from Pondicherry University in 2012. Dr. George specializes in Geochemistry, particularly siliciclastic and carbonate geochemistry, and Isotope geology. He has more than 11 publications in reputed national and international journals, with 8 first-author articles. He is currently working on quantitative sediment provenance analysis, U-Pb detrital zircon geochronology, Evolutionary history of Proterozoic sedimentary basins of India, and Quaternary landscape evolution of western India. His future interests include Provenance studies on the Late Pleistocene sediments of western India, Extinction events and stratigraphic boundaries, and U-Pb in-situ dating of carbonates using LA-ICPMS.